

B submitted herewith. Appendix A is a marked-up copy of the claims and Appendix B is a clean copy of the claims.

REMARKS

Claims 1-8 and 12-15 are presently pending in the captioned application with claims 1-8 and 12-14 being amended.

Claims 1 and 2 have been amended to include the limitation that the density of the foamed propylene layer of the molded article is 25 to 400 kg/m³. Claims 1-2 have also been amended to overcome various ground of rejection under 112, 2nd paragraph. The depending claims 3-8 and 12-14 have been similarly amended.

In particular, support for the claim amendments can be found in the specification at page 13, lines 9-18, page 14, line 18 to line 3, on page 15 as well as line 26, page 35 to line 21, page 36.

No new matter within the meaning of §132 has been added by any of the amendments.

Accordingly, Applicants respectfully request the Examiner to reconsider the rejections and allow all claims pending in this application.

1. Rejection of Claims 1-8 and 12-15 under 35 U.S.C. §112, 2nd Paragraph

The Office Action rejects claims 1-8 and 12-15 under U.S.C.

§112, 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter. The Office Action states:

The phrases 'expansion-molded' and 'fusion bonded' are indefinite, as their meanings are unclear. For purposes of examination, the phrases will be assumed to mean 'blow molded' and 'mutually welded,' respectively. The phrase 'in such manner' is also indefinite, as its meaning is unclear. The phrases 'obtained by measurement to a polypropylene resin forming the foamed layer' and 'obtained by measurement to a polypropylene resin forming the resin layer,' are also unclear, as their meanings are unclear. The meanings of Relationships (1) and (2) in Claims 1 and 2 are therefore also unclear. The phrase 'melt flow rate' in line 19 is indefinite because it is not clear if the phrase means the melt flow rate 'obtained by measurement to a polypropylene resin forming the foamed layer' (line 12) or 'obtained by measurement to a polypropylene resin forming the resin layer' (line 17).

Applicants respectfully traverse this rejection. However, in the interest of advancing prosecution Applicants have amended portions of the claims as suggested by the Examiner.

Regarding the rejection over the phrase "fusion bonded", Applicants have replaced the term "fusion bonded" with "mutually welded".

Regarding the rejection over the phrase "expansion-molded", Applicants traverse the allegation that "expansion-molded" and "blow molded" have the same meaning. In particular, formation

of the presently claimed molded article does not require blowing air into a parison. However, in the interest of advancing prosecution, Applicants have replaced the term "multi-layer expansion-molded article" and "expansion-molded article" with "skin-bearing molded article". This amendment is in no way related to a substantial question of patentability.

Regarding the rejection over the phrase "in such manner", Applicants have replaced the term with "wherein".

Regarding the rejection over the phrase "obtained by measurement to a polypropylene resin forming the foamed layer" and "obtained by measurement to a polypropylene resin forming the resin layer" of claim 1, Applicants have amended claim 1 to recite a first polypropylene resin forming the foamed polypropylene resin layer in the skin-bearing article having a melt tension, MT_{fr} (gf) and a melt flow rate, MFR_{fr} (g/10 min), and a second polypropylene resin forming the polypropylene resin layer on the surface of the foamed polypropylene resin layer having a melt tension, MT_{rr} (gf) and a melt flow rate, MFR_{rr} (g/10 min).

Similarly, claim 2 has been amended to recite the MT and MFR for the final test pieces rather than the starting raw materials.

Accordingly, Applicants respectfully submit that the presently pending claims particularly point out and distinctly claim the invention and request the Examiner to reconsider and remove

the outstanding rejections.

2. Rejection of Claims 1-2, 4-8 and 14-15
under 35 U.S.C. §103(a)

The Office Action rejects claims 1-2, 4-8 and 14-15 under U.S.C. §103(a) as being unpatentable over USP 5,714,227 ("Sugawara et al.") in view of USP 5,602,223 ("Sasaki et al."). The Office states:

With regard to Claims 1-2 and 14-15, Sugawara et al disclose a multi-layer blow molded article of a polypropylene resin (an instrument panel for an automobile; column 6, lines 10-24) which is obtained by molding a multiplayer parison comprising three layers; two resin layers, and an intermediate formed layer (the article therefore has polymer layers situated on both inner and outer sides; column 6, lines 12-17); the parison is held in a mold (clamped between the dies of a mold; column 3, lines 19-28); part of the inner-side polymer layer of the parison is welded to itself (the parison is pressed and mutually welded; column 8, lines 36-440. Sugawara et al fail to disclose a polypropylene having a melt flow rate of at least 0.3 grams/10 minutes.

Sasaki et al teach the use of a polypropylene having melt flow rate of greater than 0/3 grams/10 minutes (column 3, lines 48-55) for the purpose of using a film having high moldability for making molded articles (column 1, lines 10-19).

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have

provided for a melt flow rate of at least 0.3 grams/10 minutes in Sugawara et al in order to use a film having high moldability for making molded articles at taught by Sasaki et al.

With regard to Claims 4-8, Sugawara et al. fail to disclose an article in which the welded portion comprises 25% of the inner layer, and 60% of the inner layer, and 95% of the area of the inner layer, and a parison which comprises a third resin layer.

However, Sugawara et al. teach a weld portion which comprises 1% of the inner layer (part of the parison is mutually welded; column 8, lines 33-44), and a parison which comprises two resin layers as discussed above. Therefore, the percent of the inner layer contained in the welded portion and the number of resin layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. Therefore, it would be obvious for one of ordinary skill in the art to vary the percent of the inner layer contained in the welded portion, and the number of resin layers, since the percent of the inner layer contained in the welded portion and the number of resin layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Sugawara et al. In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).

Applicants respectfully traverse this rejection because all the claimed limitations have not been taught by the cited references. In particular, neither Sugawara et al. nor Sasaki et al. teach a density of 25 to 400 kg/m³ for a foamed propylene layer of a skin-bearing molded article. Moreover, there is no

suggestion or motivation to make the claimed multi-layer foamed parison because one of ordinary skill would have expected that press-molding an article having low densities would result in collapsed moldings.

Turning to the rule, the Federal Circuit held that a *prima facie* case of obviousness must establish: (1) some suggestion or motivation to modify the references; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

Even if a *prima facie* case of obviousness has been established, secondary considerations such as commercial success, long felt but unsolved need, failure of others, and unexpected results may nevertheless give rise to a patentable invention. Graham v. John Deere Co., 148 U.S.P.Q. 459 (1966). Where the claimed and prior art products are substantially similar, a *prima facie* case of obviousness can also be rebutted by demonstrating that the prior art products do not possess the characteristics of the claimed invention. In re Best, 196 U.S.P.Q. 430, 433 (C.C.P.A. 1977).

In the present application, claim 1 recites a skin-bearing

article of a polypropylene resin, obtained by molding a multi-layer foamed parison comprising:

a foamed polypropylene resin layer having a density of 25 to 400 kg/m³, and

a polypropylene resin layer provided on the outer side of the foamed resin layer in a mold

wherein at least part of the opposed inner surfaces of foamed polypropylene resin layer in the parison are mutually welded to each other

wherein a first polypropylene resin forming the foamed polypropylene resin layer in the skin-bearing article has a melt tension, MT_{fr} (gf) and a melt flow rate, MFR_{fr} (g/10 min) and satisfies the following relationship (1), and

a second polypropylene resin forming the polypropylene resin layer on the surface of the foamed polypropylene resin layer has a melt tension, MT_{rr} (gf) and a melt flow rate, MFR_{rr} (g/10 min) and satisfies the following relationship (2)

when the melt flow rate MFR_{fr} is at least 0.3 (g/10min), or the melt tension, MT_{fr} is at least 10 (gf) when the melt flow rate, MFR_{rr} is not lower than 0.2 (g/10 min), but lower than 0.3 (g/10 min):

$$\log MT_{fr} > -0.74 \log MFR_{fr} + 0.66 \quad (1)$$

$$\log MT_{rr} > -1.02 \log MFR_{rr} + 0.47 \quad (2).$$

However, nowhere does Sugawara et al. or Sasaki et al. teach each and every claimed limitation of presently pending claims 1 and 2.

All Sugawara et al. teaches is a blow-molded tubular parison of molten resin. No disclosure in Sugawara et al. relates to reducing the density of a foamed layer or preventing the formation of open cells in the foamed layer or preventing cracks or holes in the resin layer that accompany a reduction in the density of the foamed layer. That a specific relation between melt tension ("MT") and melt flow rate ("MFR"), such as the one given by Eq. (1) or (3), is used as the polypropylene-based resin for forming the foamed layer is not taught nor suggested by Sugawara et al.

Similarly, Sasaki et al. fails to teach all the claimed limitations. Although Sasaki et al. does teach a polypropylene with a melt flow rate of 0.3 g/10 min or greater as a moldable film, the ethylene- α -olefin copolymer described in Sasaki et al. is different from the copolymer of the present invention. In particular, the copolymer of Sasaki et al. has an α -olefin content of 0.4-25 mol% (column 4, lines 8-9), imparting completely different physical properties from those of a polypropylene-based homopolymer or a copolymer primarily containing propylene of the present invention.

Sasaki et al. also fails to teach that a specific relation between melt tension and melt flow rate is crucial to

addressing problems encountered in press-molding a reduced density foamed article. That a resin having specific melt tension and melt flow rate may be used both for the polypropylene-based resin that constitutes the foamed layer and for the polypropylene-based resin that constitutes the resin layer provided on the outer side of the foamed layer is not taught.

Simply teaching that a high MT may prevent drawdown from occurring in film molding techniques would not suggest or motivate one of ordinary skill to derive specific relationships crucial to making a low density article that survives press-molding. In other words, one of ordinary skill in the art would not have sought to satisfy the equations of $\log MT_{fr} > -0.74 \log MFR_{fr} + 0.66$ and $\log MT_{rr} > -1.02 \log MFR_{rr} + 0.47$. Therefore, one of ordinary skill in the art would not have known to vary MT and MFR to make the claimed invention because no suggestion or motivation to vary melt indexes existed for low density molded articles. Accordingly, the claimed limitations are not result-effective variables. See In re Antoine, 195 UPSQ 6 (C.C.P.A. 1977).

Applicants note that any possible admonition that it would have been "obvious to try" to vary MT and MFR is improper. This is because in some cases, what would have been "obvious to try" would have been to vary all parameters or try each of numerous choices until one possibly arrived at a successful result. Since

neither Sugawara et al. nor Sasaki et al. give any indication that the claimed limitations result in improved press-molding characteristics for low density polypropylene copolymers, it would not have been obvious to try to make a skin-bearing composition incorporating the claimed limitations. See In re O'Farrell, 853 F.2d 894, 903, U.S.P.Q.2d 1673, 1681 (Fed. Cir. 1988).

Therefore, a *prima facie* case of obviousness has been established and the Office Action fails to provide a convincing line of reasoning that would provide any suggestion or motivation to make the claimed invention.

For all these reasons, Applicants respectfully submit that the presently claimed invention is unobviousness over the cited references and respectfully request reconsideration and withdrawal of the rejections of claims 1-2, 4-8 and 14-15 under 35 U.S.C. §103.

3. Rejection of Claims 3 and 12-13
under 35 U.S.C. §103(a)

The Office Action rejects claims 3 and 12-13 under U.S.C. §103(a) as being unpatentable over USP 5,714,227 ("Sugawara et al.") in view of USP 5,602,223 ("Sasaki et al.") and further in view of USP 5,801,205 ("Nishibori et al."). The Office states:

Sugawara et al and Sasaki et al disclose an
instrument panel for an automobile as

discussed above. With regard to Claims 3 and 12-13, the thickness of the resin layer is 1-10mm(column 6, lines 28-29 and 58-59) the instrument panel also constitutes a shock-absorber and container, for instruments. Sugawara et al fail to disclose a foamed layer having a density of 25 to 400 kg/m³.

Nishibori et al disclose a density of 25 kg/m³ for a foamed layer for the interior of an automobile (column 2, lines 31-48) for the purpose of forming a foam which is light-weight and durable (column 1, lines 50-59).

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a density of 25 to 400 kg/m³ in Nishibori et al in order to form a foam which is light-weight and durable as taught by Nishibori et al.

Applicants respectfully traverse this rejection because all the claimed limitations of dependent claims 3 and 12-13 have not been taught by the cited references. As stated *supra*, both Sugawara et al. and Sasaki et al. fail to teach each and every claimed limitation of the independent claims. 1-2, which rejected claims 3 and 12-13 depend therefrom.

Applicants hereby incorporate by reference all the arguments made in point 2 regarding the failure of Sugawara et al. and Sasaki et al. to teach a density of 25 to 400 kg/m³ for a foamed propylene layer of a skin-bearing molded article and the lack of any suggestion or motivation to make the claimed multi-layer foamed parison.

Additionally, Applicants note that Nishibori et al. also fails to teach each and every claimed limitation. Although Nishibori et al. describes a foamed layer having a density of 20-50 kg/m³, the polyurethane foams of Nishibori et al. are completely different from the polypropylene-based resin of the present invention. In particular, the thermosetting resin foamed materials of Nishibori et al. include a polyurethane foamed material, a silicone foamed material and a phenol foamed material. Typical urethane foamed materials of the thermoset resin foamed materials further include a soft polyurethane foamed material and a hard polyurethane foamed material most often used in automobile seats.

In contrast, the molded articles of the present invention are fabricated from polypropylene-based resin. This process results in collapsed foamed layers not common to the polyurethanes of Nishibori et al. However, the specific problems of cell collapse, cracks and hole-formation common to polypropylene-based resins are the object of the invention. Clearly, Nishibori et al. has no relation to the present invention other than stating a particular density range for a unrelated polyurethane.

For all these reasons, Applicants respectfully submit that the presently claimed invention is unobvious over the cited references and respectfully request reconsideration and withdrawal of the rejections of claims 3 and 12-13 under 35 U.S.C. §103.

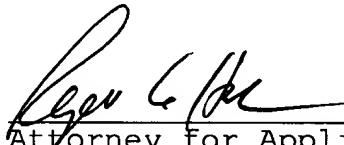
CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of the pending claims and allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:) Group Art Unit: 1772
)
KOGURE, GOKURAKU, TAKAHASHI) Examiner: Marc A. Patterson
IMANARI, KITAHAMA)
)
Serial No. 09/629,949)
)
Filed: August 1, 2000)

For: **MULTI-LAYER EXPANSION-MOLDED ARTICLE OF POLYPROPYLENE
RESIN, PRODUCTION PROCESS THEREOF, AND CONTAINER,
SHOCK-ABSORBING MATERIAL FOR AUTOMOBILE AND AUTOMOTIVE
MEMBER FORMED OF THE MULTI-LAYER EXPANSION- MOLDED
ARTICLE OF POLYPROPYLENE RESIN**

Appendix A

Please amend the claims as indicated in the following
marked up copy of the claims.

1. (Once Amended) A [multi-layer expansion-molded]
skin-bearing article of a polypropylene resin, which is obtained
by molding a multi-layer foamed parison comprising :

 a foamed polypropylene resin layer having a density of
25 to 400 kg/m³, and

 a polypropylene resin layer provided on the outer side
of the foamed resin layer in a mold

 [in such manner that] wherein at least part of the
opposed inner surfaces of foamed polypropylene resin layer
in the parison are [fusion-bonded] mutually welded to each

other [, and has a polypropylene resin layer on the surface of a foamed polypropylene resin layer,]

wherein

[a melt tension, MT (gf) and a melt flow rate, MFR (g/10 min) obtained by measurement to] a first polypropylene resin forming the foamed polypropylene resin layer in the [expansion-molded] skin-bearing article has a melt tension, MT_{fr} (gf) and a melt flow rate, MFR_{fr} (g/10 min) and satisfies [satisfy] the following relationship (1), and

[a melt tension, MT (gf) and a melt flow rate, MFR (g/10 min) obtained by measurement to] a second polypropylene resin forming the polypropylene resin layer on the surface of the foamed polypropylene resin layer has a melt tension, MT_{rr} (gf) and a melt flow rate, MFR_{rr} (g/10 min) and satisfies [satisfy] the following relationship (2)

when the melt flow rate [MFR] MFR_{fr} is at least 0.3 (g/10min), or the melt tension, [MT] MT_{fr} is at least 10 (gf) when the melt flow rate, MFR_{rr} is not lower than 0.2 (g/10 min), but lower than 0.3 (g/10 min):

$$\log [MT] \underline{MT_{fr}} > -0.74 \log [MFR] \underline{MFR_{fr}} + 0.66 \quad (1)$$

$$\log [MT] \underline{MT_{rr}} > -1.02 \log [MFR] \underline{MFR_{rr}} + 0.47 \quad (2) \quad .$$

2. (Once Amended) A [multi-layer expansion-molded] skin-bearing article of a polypropylene resin, which is obtained by molding a multi-layer foamed parison comprising :

a foamed polypropylene resin layer having a density of 25 to 400 kg/m³, and

a polypropylene resin layer provided on the outer side of the foamed resin layer in a mold

[in such manner that] wherein at least part of the opposed inner surfaces of foamed polypropylene resin layer in the parison are [fusion-bonded] mutually welded to each other, and has a polypropylene resin layer on the surface of a foamed polypropylene resin layer,

wherein

[a melt tension, MT (gf) and a melt flow rate, MFR (g/10 min) obtained by measurement to a polypropylene resin forming] the foamed polypropylene resin layer in the [expansion-molded] skin-bearing article has a melt tension, MT_{f1} (gf) and a melt flow rate, MFR_{f1} (g/10 min) and satisfies [satisfy] the following relationship (3), and

[a melt tension, MT (gf) and a melt flow rate, MFR (g/10 min) obtained by measurement to a polypropylene resin forming] the polypropylene resin layer on the surface of the foamed polypropylene resin layer has a

melt tension, MT_{r1} (gf) and a melt flow rate, MFR_{r1} (g/10 min) and satisfies [satisfy] the following relationship (4)

when the melt flow rate [MFR] MFR_{f1} is at least 0.5 (g/10min), or the melt tension, [MT] MT_{f1} is at least 10 (gf) when the melt flow rate, MFR_{r1} is not lower than 0.2 (g/10 min), but lower than 0.5 (g/10 min):

$$\log [MT] \underline{MT_{f1}} > -0.74 \log [MFR] \underline{MFR_{f1}} + 0.79 \quad (3)$$

$$\log [MT] \underline{MT_{r1}} > -1.02 \log [MFR] \underline{MFR_{r1}} + 0.69 \quad (4) \quad \cdot$$

3. (Once Amended) The [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the thickness of the polypropylene resin layer formed on the surface of the foamed polypropylene resin layer is 100 μ m to 10 mm, and the overall density of the [expansion-molded] skin-bearing article is 20 to 400 kg/m^3 .

4. (Once Amended) The [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the [fusion-bonded] mutually welded portion in the inner surface of the [expansion-molded] skin-bearing article is at least 25%.

5. (Once Amended) The [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the [fusion-bonded] mutually welded portion in the inner surface of the [expansion-molded] skin-bearing article is at least 60%.

6. (Once Amended) The [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the [fusion-bonded] mutually welded portion in the inner surface of the [expansion-molded] skin-bearing article is at least 80%.

7. (Once Amended) The multi-layer [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the [fusion-bonded] mutually welded portion in the inner surface of the [expansion-molded] skin-bearing article is at least 95%.

8. (Once Amended) The [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claims 1 or 2, which further has a skin layer formed of a synthetic resin on the outer side of the polypropylene resin layer.

12. (Once Amended) A container formed of the [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the overall density of the container is 30 to 400 kg/m³, and the thickness of the polypropylene resin layer is 200 μm to 5 mm.

13. (Once Amended) A shock-absorbing material for automobile formed of the [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the overall density of the shock-absorbing material is 25 to 300 kg/m³ and the thickness of the polypropylene resin layer is 200 μm to 7 mm.

14. (Once Amended) A member for automobile formed of the [multi-layer expansion-molded] skin-bearing article of the polypropylene resin according to Claim 1 or 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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KOGURE, GOKURAKU, TAKAHASHI) Examiner: Marc A. Patterson
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For: **MULTI-LAYER EXPANSION-MOLDED ARTICLE OF POLYPROPYLENE
RESIN, PRODUCTION PROCESS THEREOF, AND CONTAINER,
SHOCK-ABSORBING MATERIAL FOR AUTOMOBILE AND AUTOMOTIVE
MEMBER FORMED OF THE MULTI-LAYER EXPANSION- MOLDED
ARTICLE OF POLYPROPYLENE RESIN**

Appendix B

Please amend the claims as indicated in the following clean
copy of the claims.

1. (Once Amended) A skin-bearing article of a
polypropylene resin, which is obtained by molding a multi-layer
foamed parison comprising:

a foamed polypropylene resin layer having a density of
25 to 400 kg/m³, and

a polypropylene resin layer provided on the outer side
of the foamed resin layer in a mold

wherein at least part of the opposed inner surfaces of
foamed polypropylene resin layer in the parison are
mutually welded to each other

wherein

a first polypropylene resin forming the foamed polypropylene resin layer in the skin-bearing article has a melt tension, MT_{fr} (gf) and a melt flow rate, MFR_{fr} (g/10 min) and satisfies the following relationship (1), and

a second polypropylene resin forming the polypropylene resin layer on the surface of the foamed polypropylene resin layer has a melt tension, MT_{rr} (gf) and a melt flow rate, MFR_{rr} (g/10 min) and satisfies the following relationship (2)

when the melt flow rate MFR_{fr} is at least 0.3 (g/10min), or the melt tension, MT_{fr} is at least 10 (gf) when the melt flow rate, MFR_{rr} is not lower than 0.2 (g/10 min), but lower than 0.3 (g/10 min):

$$\log MT_{fr} > -0.74 \log MFR_{fr} + 0.66 \quad (1)$$

$$\log MT_{rr} > -1.02 \log MFR_{rr} + 0.47 \quad (2) \quad .$$

2. (Once Amended) A skin-bearing article of a polypropylene resin, which is obtained by molding a multi-layer foamed parison comprising:

a foamed polypropylene resin layer having a density of 25 to 400 kg/m³, and

a polypropylene resin layer provided on the outer side of the foamed resin layer in a mold

wherein at least part of the opposed inner surfaces of foamed polypropylene resin layer in the parison are mutually welded to each other, and has a polypropylene resin layer on the surface of a foamed polypropylene resin layer,

wherein

the foamed polypropylene resin layer in the skin-bearing article has a melt tension, MT_{f1} (gf) and a melt flow rate, MFR_{f1} (g/10 min) and satisfies the following relationship (3), and

the polypropylene resin layer on the surface of the foamed polypropylene resin layer has a melt tension, MT_{r1} (gf) and a melt flow rate, MFR_{r1} (g/10 min) and satisfies the following relationship (4)

when the melt flow rate MFR_{f1} is at least 0.5 (g/10min), or the melt tension, MT_{f1} is at least 10 (gf) when the melt flow rate, MFR_{r1} is not lower than 0.2 (g/10 min), but lower than 0.5 (g/10 min):

$\log MT_{f1} > -0.74 \log MFR_{f1} + 0.79$ (3)

$\log MT_{r1} > -1.02 \log MFR_{r1} + 0.69$ (4) .

3. (Once Amended) The skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the

thickness of the polypropylene resin layer formed on the surface of the foamed polypropylene resin layer is 100 μ m to 10 mm, and the overall density of the skin-bearing article is 20 to 400 kg/m³.

4. (Once Amended) The skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the mutually welded portion in the inner surface of the skin-bearing article is at least 25%.

5. (Once Amended) The skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the mutually welded portion in the inner surface of the skin-bearing article is at least 60%.

6. (Once Amended) The skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the mutually welded portion in the inner surface of the skin-bearing article is at least 80%.

7. (Once Amended) The multi-layer skin-bearing article of the polypropylene resin according to Claims 1 or 2, wherein the area ratio of the mutually welded portion in the inner surface of the skin-bearing article is at least 95%.

8. (Once Amended) The skin-bearing article of the polypropylene resin according to Claims 1 or 2, which further has a skin layer formed of a synthetic resin on the outer side of the polypropylene resin layer.

12. (Once Amended) A container formed of the skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the overall density of the container is 30 to 400 kg/m³, and the thickness of the polypropylene resin layer is 200 μ m to 5 mm.

13. (Once Amended) A shock-absorbing material for automobile formed of the skin-bearing article of the polypropylene resin according to Claim 1 or 2, wherein the overall density of the shock-absorbing material is 25 to 300 kg/m³ and the thickness of the polypropylene resin layer is 200 μ m to 7 mm.

14. (Once Amended) A member for automobile formed of the skin-bearing article of the polypropylene resin according to Claim 1 or 2.